



# **Community engagement**

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## Recommendation from last SEEDS Workshop:

*It should be the highest priority for the current Formulation Team of the SEEDS project to develop and implement organizational structures facilitating much deeper engagement of key stakeholders. This action itself must involve some of these stakeholders and should start immediately.*

# Outline of talk

- ⇒ Levels of participation
- ⇒ Why is there a need for greater participation
  - The example of rapid response
- ⇒ Community engagement as an approach
- ⇒ Definitions: engagement and community engagement
- ⇒ Principles of community engagement
- ⇒ Challenges for NASA: the scope of SEEDS.

# Levels of participation



# **Why is there a need for greater participation by the community?**

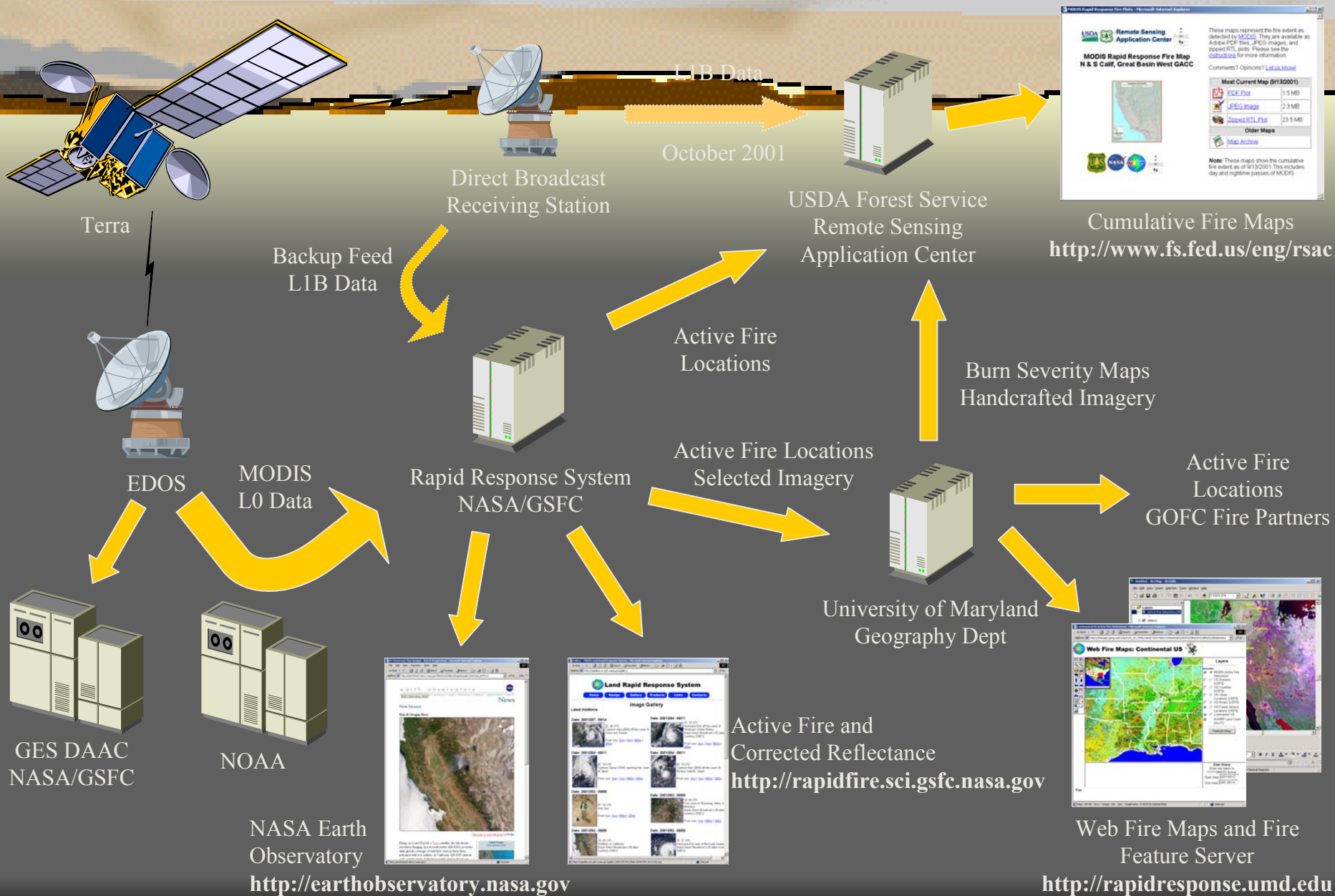
- ⇒ Without it, SEEDS will become a set of impositions on the community.
- ⇒ Without it SEEDS will be slow to evolve and develop.
- ⇒ Without it, SEEDS will fail to meet many crucial needs.
- ⇒ Without it the mission of NASA to be a knowledge agency will be under-mined.



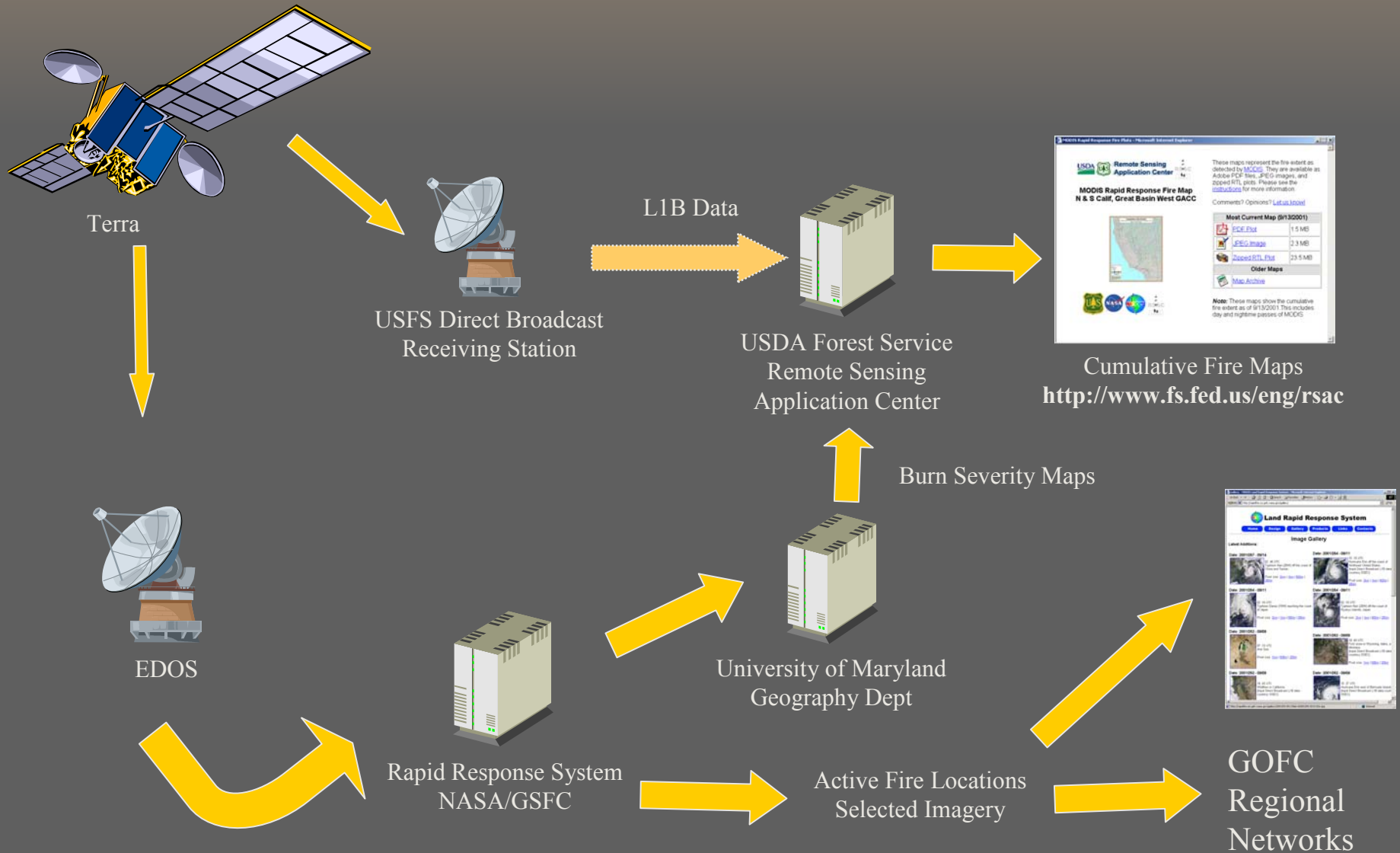
**An example of successful  
community engagement:**

**The MODIS Rapid Response  
System for Fire**

# MODIS Rapid Response Project

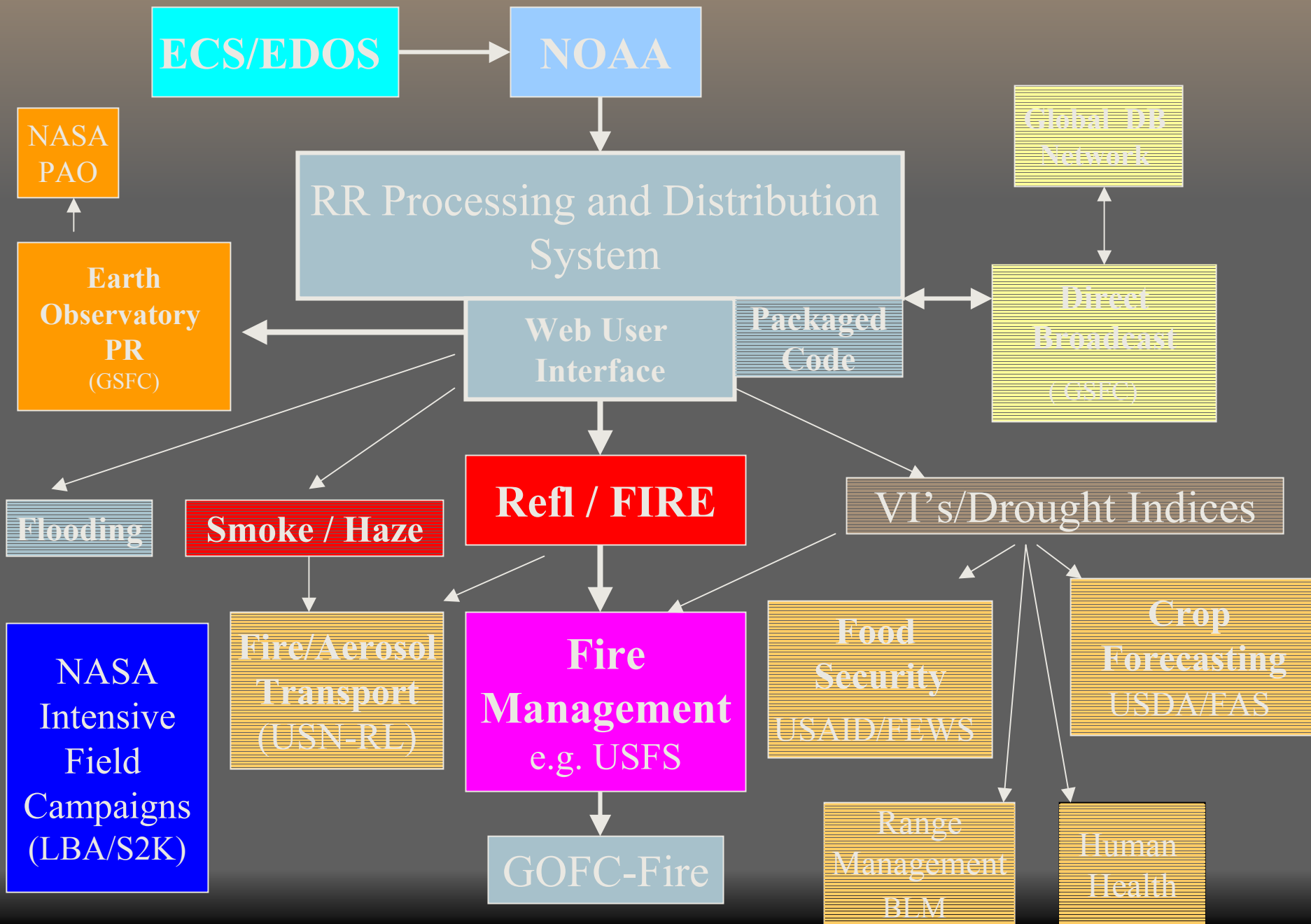


# Rapid Response 2002





# Evolution of the MODIS Land Rapid Response System



# Lessons learnt from Rapid Response

- ⇒ Note: analogy with SEEDS is not exact (scale).
- ⇒ **Rapid Prototyping** – 3 month development
- ⇒ **Adaptive**
  - **Reuse** of existing EDOS global feed to NOAA (EDOS feed through ECS unaffordable)
  - **Reuse of Hardware** from the ESIPS supported 250m System
  - **Reuse of Existing Software** development
- ⇒ **System Flexibility and Responsiveness** dictated by
  - evolving understanding of the MODIS instrument – improving algorithms
  - maturing user understanding of the match between MODIS capabilities and user needs – responsive to user demand
  - allows new and improved algorithm testing
- ⇒ **Open Source Code** packaging planned for Direct Broadcast
  - Using existing GSFC Direct Broadcast system as a Test-Bed for DB code packaging (w. Pat Coronado GSFC )
- ⇒ **Uses COTS** developments – ESRI mapping products.

# More lessons learnt

- ⇒ Genuine cooperative effort between NASA/GSFC, USFS and UMD.
- ⇒ Clearly understood needs by providers and consumers.
- ⇒ Products provided in the form needed by the user (paper maps).
- ⇒ Used the standards and protocols that were deemed appropriate.
- ⇒ Developments being steered again by needs of users rather than seeking for generic solutions.

# Definitions of engagement

- ⇒ Many meanings as outlined below.
- ⇒ Some inappropriate.
- ⇒ Many contain essential elements we need to include.
- ⇒ Which ones do you think should be included?

# Definitions of engagement (OED)

- ⇒ I. The action of engaging; the state, condition, or fact of being engaged.
- 1. The pledging or mortgaging (of property); a mortgage, 'encumbrance'. Obs.
  - 2. a. A formal promise, agreement, undertaking, covenant.
  - b. An 'appointment' made with another person for any purpose of business, festivity, etc. Also attrib., as engagement book.
  - c. Comm. in pl. Promises to pay; pecuniary liabilities. In phrase, to meet one's engagements.
  - d. The fact of being engaged to be married; betrothal. Also attrib., esp. as engagement ring.

# Definitions

- 3. The fact of being engaged by an employer; an 'appointment', salaried post.
- 4.   a. Moral or legal obligation; a tie of duty or gratitude. Obs.
- b. Attachment, prepossession, bias. Cf. ENGAGE v. 7c, 10. Obs. rare.
- c. In Literary Criticism, etc.: = COMMITMENT 6c. Sometimes with Fr. pronunc. (gam).
- 5. The fact of being entangled; involved or entangled condition. Obs.
- 6. The fact of being engaged in any occupation; a piece of business requiring attention.

# Definitions

- ➔ 7. Swordsmanship. The action of crossing swords. See ENGAGE 17.
- ➔ 8. The state of being engaged in fight; a battle, conflict, encounter; also formerly, a single combat.
- ➔ II. 9. in active sense: That which engages or induces to a course of action; an inducement, motive.

# Community engagement

- ➔ Concept largely derived from the health sciences.
- ➔ The following ideas are derived from *the CDC/ATSDR Committee for Community Engagement; Fawcett et al., 1995*.
- ➔ Community engagement is the process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the effectiveness (well-being) of those people.
- ➔ It is a powerful vehicle for bringing about environmental and behavioral changes that will improve the ability of people to use remotely sensed data (health of the community and its members).
- ➔ CE often involves partnerships and coalitions that
  - help mobilize resources and influence systems,
  - change relationships among partners, and
  - serve as catalysts for changing policies, programs, and practices



# Community engagement

- ➡ In practice, community engagement is a blend of social science and art. The science comes from sociology, political science, cultural anthropology, organizational development, psychology, social work, and other disciplines with organizing concepts drawn from the literature on community participation, community mobilization, constituency building, community psychology, cultural influences, and other sources.
- ➡ The equally important artistic element necessary to the process, however, involves using understanding, skill, and sensitivity to apply and adapt the science in ways that fit the community and purposes of specific engagement efforts.

# Community Engagement

- ➔ Community engagement is a process, not a program. It is the participation of members of a community in assessing, planning, implementing, and evaluating solutions to problems that affect them.
- ➔ As such, community engagement involves interpersonal trust, communication, and collaboration.
- ➔ Such engagement, or participation, should focus on, and result from, the needs, expectations, and desires of a community's members.

# Principles of Community Engagement

(derived from with some additions from [www.cdc.gov/phppo/](http://www.cdc.gov/phppo/))

- ➔ 1. Be clear about the purposes or goals of the engagement effort, and the populations and/or communities you want to engage. The implementers of the engagement process need to be able to communicate to the community why participation is worthwhile.
- ➔ 2. Become knowledgeable about the community in terms of its economic conditions, political structures, norms and values, demographic trends, history, and experience with engagement efforts. Learn about the community's perceptions of those initiating the engagement activities. It is important to learn as much about the community as possible, through both qualitative and quantitative methods from as many sources as feasible.
- ➔ 3. Go into the community, establish relationships, build trust, work with the formal and informal leadership, and seek commitment from community organizations and leaders to create processes for mobilizing the community. Engagement is based on community support for whatever the process is trying to achieve.

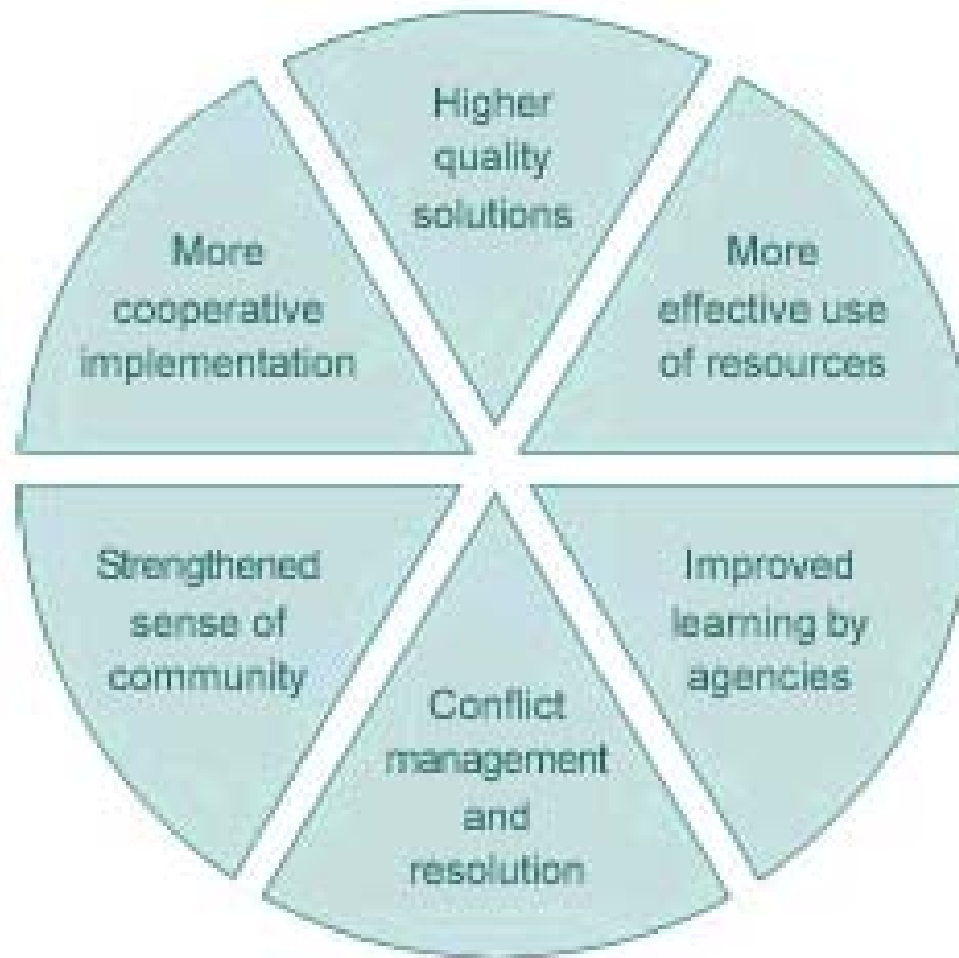
# Principles of Community Engagement

- ➔ 4. Remember and accept that community self-determination is the responsibility and right of all people who comprise a community. No external entity should assume it can bestow on a community the power to act in its own self-interest.
- ➔ 5. Partnering with the community is necessary to create change and improve information systems..
- ➔ 6. All aspects of community engagement must recognize and respect community diversity. Awareness of the various cultures of a community and other factors of diversity must be paramount in designing and implementing community engagement approaches.

# Principles of Community Engagement

- ➔ 7. Community engagement can only be sustained by identifying and mobilizing community assets, and by developing capacities and resources for community decisions and action.
- ➔ 8. An engaging organization or individual change agent must be prepared to release control of actions or interventions to the community, and be flexible enough to meet the changing needs of the community.
- ➔ 9. Community collaboration requires long-term commitment by the engaging organization and its partners.

# Benefits of CE



From Charter for Community Engagement Department of Emergency Services, Queensland Government

# Levels of engagement and consultation



# The dangers of a lack of engagement

⇒ Note the particular importance of starting where the people are: if we fail to start with what is close to people's hearts by imposing our notions of information systems over theirs, we risk several disabling effects.

These include:

- being irrelevant to the community,
- exacerbating the community's sense of powerlessness,
- further complicating users lives,
- channeling local energies away from broader challenges



# The scope of SEEDS

- ⇒ One extreme: SEEDS is merely interfaces and standards.
- ⇒ Opposite extreme: SEEDS/NewDISS includes the various types of data centers, the products, services etc etc as well as all the interfaces and standards.
- ⇒ The original concept of NewDISS identified interfaces and standards as the only components that had to be well defined. This did not imply that this was all that NewDISS should be.
- ⇒ NewDISS included all the various data centers, products, services etc as well – it was felt that these did not need to be closely specified, but there had to be a framework of organization and governance that allowed them to evolve.
- ⇒ The success of SEEDS will strongly depend on the degree to which we engage all the communities supplying, analysing, adding value and using NASA's ESE products

